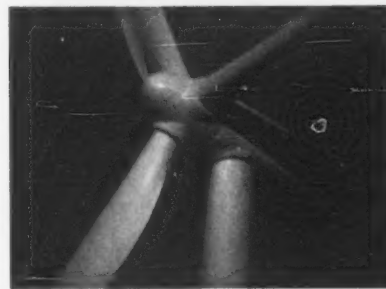
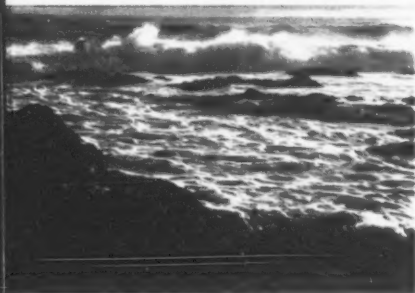




**NBSO  
ERNB**

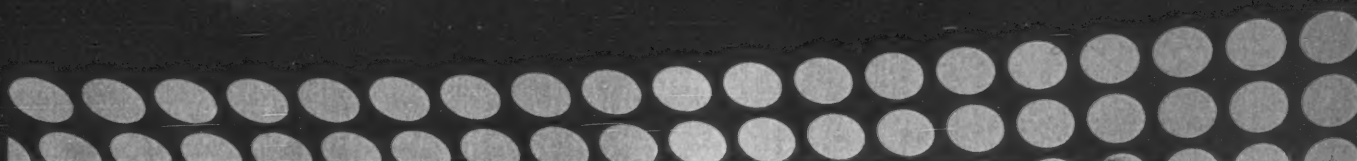
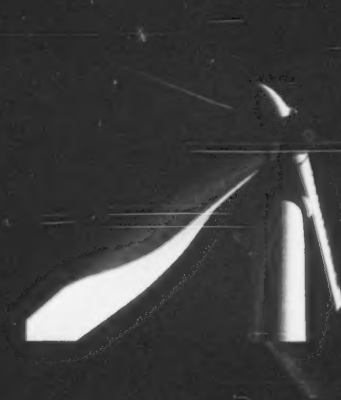
## **New Brunswick System Operator**

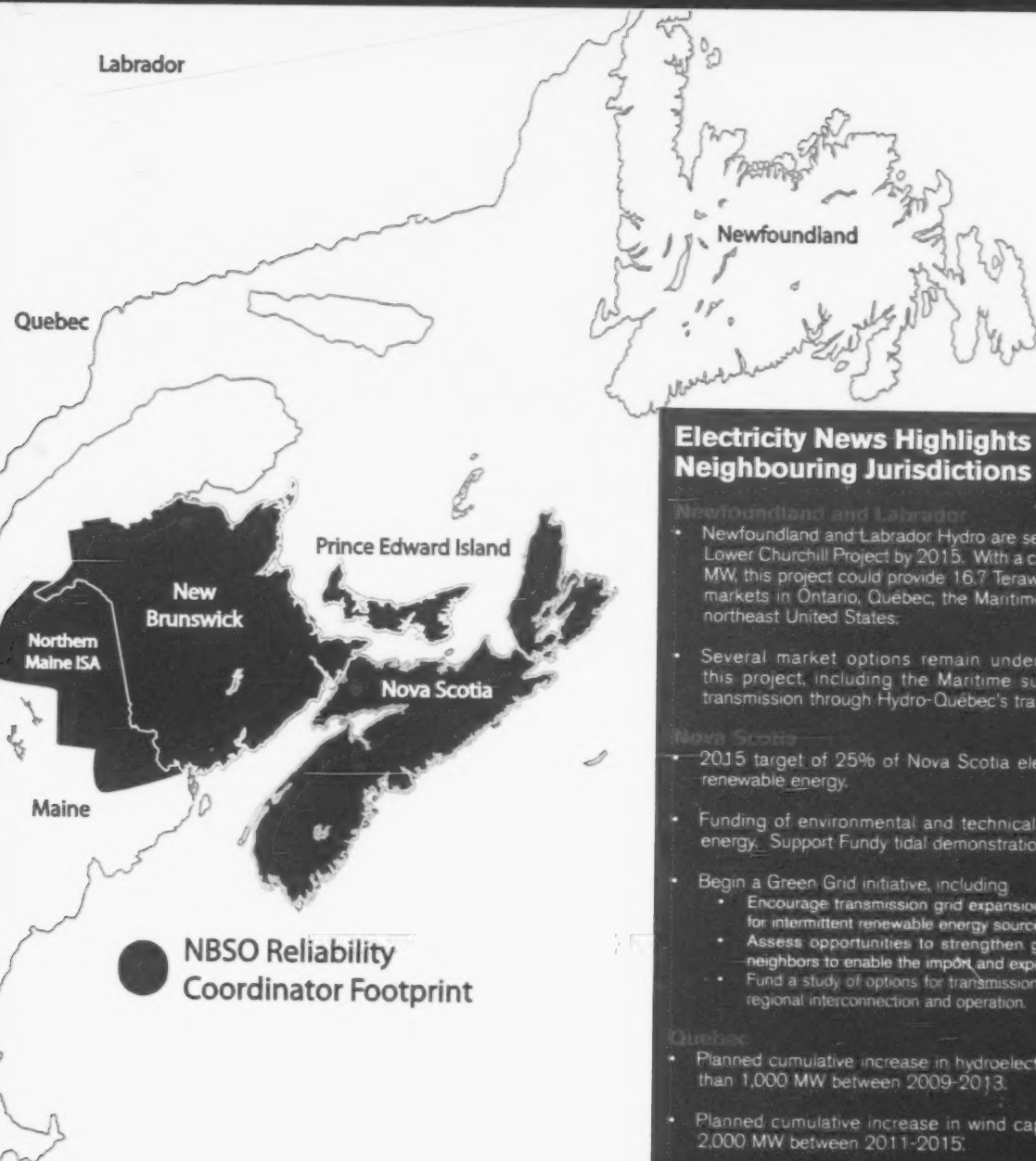


2008/09 Annual Report

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## Electricity News Highlights in Neighbouring Jurisdictions

### Newfoundland and Labrador

- Newfoundland and Labrador Hydro are seeking to develop the Lower Churchill Project by 2015. With a capacity of over 3,000 MW, this project could provide 16.7 Terawatt hours annually to markets in Ontario, Québec, the Maritime Provinces, and the northeast United States.
- Several market options remain under consideration for this project, including the Maritime submarine route and transmission through Hydro-Québec's transmission system.

### Nova Scotia

- 2015 target of 25% of Nova Scotia electricity supplied by renewable energy.
- Funding of environmental and technical research on ocean energy. Support Fundy tidal demonstration centre.
- Begin a Green Grid initiative, including
  - Encourage transmission grid expansion to increase capacity for intermittent renewable energy sources.
  - Assess opportunities to strengthen grid connections with neighbors to enable the import and export of clean energy.
  - Fund a study of options for transmission grid upgrades and for regional interconnection and operation.

### Quebec

- Planned cumulative increase in hydroelectric capacity of more than 1,000 MW between 2009-2013.
- Planned cumulative increase in wind capacity of more than 2,000 MW between 2011-2015.

### PEI

- By 2013, PEI has a goal of 500 MW of wind capacity (currently 165 MW).

### Maine

- On March 25, 2009 Maine and New Brunswick announced they would explore the development of a Northeast Power Corridor, which could include:
  - 1,200-1,500 MW of electrical transmission capability
  - Increased natural gas co-generation
  - Potential for more wind power in Maine and New Brunswick.

## MESSAGE FROM THE BOARD CHAIR AND THE PRESIDENT AND CEO



Curtis Howe  
Chairman of the Board

On behalf of the Board of Directors, Executive and staff of the New Brunswick System Operator (NBSO), we are pleased to present the 2008/09 Annual Report.

We at NBSO, its Board of Directors and Market Participants, would like to thank Bill Marshall, who retired in June 2008, for his distinguished leadership as the inaugural President and Chief Executive Officer. We will continue building the NBSO based on his excellent record.

In September 2008, the Board of Directors announced the appointment of Sylvain Gignac, as President and Chief Executive Officer of the NBSO. Sylvain's experience in business development, electricity export trading and renewable energy is well suited to the challenges of the NBSO in developing the market, promoting the Energy Hub, and attracting the investment needed to develop clean energy sources here in New Brunswick.

The 2008/09 fiscal year has been marked by events that could not have been anticipated in anyone's long range planning. From crude oil prices trending to a high above \$135 US in the first eight months followed by a fall to below \$40 US during winter months, to the World economic meltdown restricting access to capital, negative load growth and the deflation of electricity market prices, these events have caused many to reassess their plans by delaying and shifting investment decisions as they consider what the future holds for the electricity sector.

At the NBSO, we acknowledge these events, however, we remain focused on the long-term outlook, which for our region, is particularly challenged by the need to reduce the emissions footprint of the electricity system. The electricity sector must reduce its dependency on fossil fuels in favor of more environmentally sustainable electricity generation if we are to successfully attain the societal environmental goals of New Brunswick. This, along with ongoing efforts of the New Brunswick Government towards the development of the Energy Hub and maintaining the reliability of the grid, are the underpinnings of the NBSO priorities.

To face uncertainties while meeting environmental challenges with smarter technologies and ensuring the implementation of increasingly complex regulatory standards for 2009 and beyond, we have reviewed our strategic process and business planning. Through this exercise, we have developed a strategy building on our key strengths: our expertise, our unique and strategic position to tackle new challenges and most importantly, our people.

### Our Expertise in Reliability

From the development of smart meters, to the integration of renewable resources and to the looming threat of cyber attack, system operators must ensure the reliability of their operations with the adoption and enforcement of increasingly complex standards while understanding the needs of their stakeholders.

In the current year, to further enhance the reliability of the bulk power system in the region, we signed Memoranda of Understandings with the New Brunswick Department of Energy and the North American Electric Reliability Corporation, and with the Northeast Power Coordinating Council. Through our participation with standards authorities throughout North America, we are constantly monitoring and pursuing the development of standards ensuring the reliability of the power grid but also meeting the needs of a more technologically driven industry.



### Our Commitment to Integrate Renewables

Endowed in New Brunswick with tremendous natural resources, such as wind, we initiated with the Department of Energy a regional assessment, covering the Maritimes, of the economic feasibility of large scale wind power development. Our study concludes that the development of 5,500 to 7,500 MW of wind dispersed throughout the Maritimes area can bring economic benefits to each Maritime province as well as New England.

To harness such vast amounts of wind, collaboration between system operators is critical. Market and policy reforms will require cooperation amongst the Maritime Provinces and across the northeast region of North America. As for collaboration with our peers, we are actively engaged with them to enhance the ability of the regional system to accommodate the variable nature of desired renewable generation through more homogeneous market rules.

### Our People

After five years of existence, it has been important to the NBSO to reflect on its past and examine the challenges ahead to face its priorities such as the integration of renewable resources and the development of the Energy Hub. The cornerstone of our success relies on our employees and a robust fully independent organization.

The Executive and Board of Directors have recognized the need to complete the full establishment of the NBSO as a self-supporting organization if we are to enhance our capability in serving Market Participants and power project proponents, as well as supporting the development and attainment of the Government's electricity policy goals, in a transparent and efficient manner. Following our successful revenue requirement application for 2009-2010, before the provincial Regulator, the New Brunswick Energy and Utilities Board, we now have the financial flexibility to undertake an organizational migration strategy that will consist of various actions in the areas of human resources management, office space and information management systems, which will complete the process of establishing the NBSO as a fully independent, self-supporting organization.

To face these challenges, the NBSO has the benefit of outstanding employees dedicated to NBSO's mission. We truly recognize their value.

NBSO is building its future on a foundation of strength: skilled employees, and an uncompromising commitment to achieving excellence. We are laying the groundwork for continued growth and sustainability. The objects for NBSO as set out in the Act; provide us with a steady compass in the fast-changing world of energy. Our maturity has grown out of our efforts over the past few years to accomplish our core mission of facilitating a fair, efficient and openly competitive market for electricity and providing for the well-planned, safe, reliable and economic operation of the interconnected electricity system.



Curtis Howe

A stylized, handwritten signature of Curtis Howe in dark ink.

Chairman  
Board of Directors

Sylvain Gignac

A stylized, handwritten signature of Sylvain Gignac in dark ink.

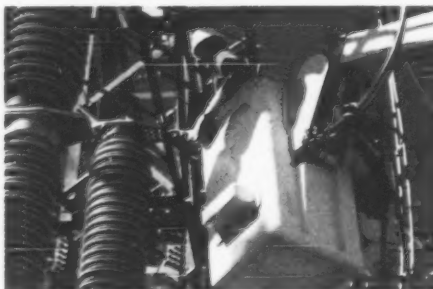
President and CEO

## CORPORATE PROFILE

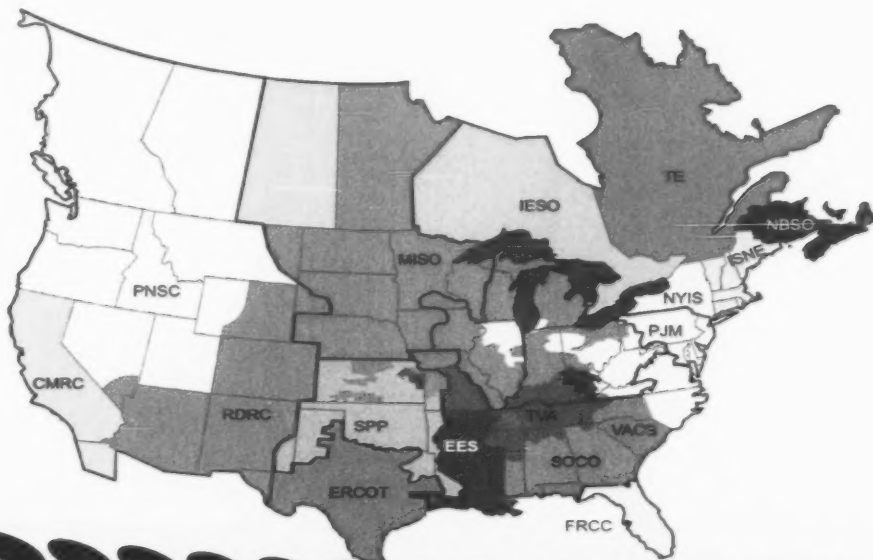
The New Brunswick System Operator (NBSO) is an independent not-for-profit statutory corporation created under New Brunswick's Electricity Act on October 1, 2004. Under the Act, NBSO is responsible for the adequacy and reliability of the integrated electricity system, and for facilitating the development and operation of the New Brunswick Electricity Market. These responsibilities take the form of operation of the NBSO-controlled grid and administration of the Open Access Transmission Tariff (Tariff) and the New Brunswick Electricity Market Rules.

The NBSO is the Balancing Authority for New Brunswick, Prince Edward Island, and Northern Maine, and the Transmission Provider for New Brunswick. NBSO provides load following and regulation service to the system in order to supply in-province customer load while maintaining scheduled flows on interconnections within established limits. These limits are set out in interconnection agreements with neighbouring system operators.

The NBSO is also one of 17 Reliability Coordinators in North America. As Reliability Coordinator for the Maritimes Area, NBSO is the authority responsible for the operation of the Bulk Power System in New Brunswick, Nova Scotia, Prince Edward Island, and a portion of northeastern Maine.



### NERC RELIABILITY COORDINATOR



## NEW BRUNSWICK ELECTRICITY MARKET AT A GLANCE

Number of Interconnections	6
Interconnection Import Capacity	2,139 MW
Interconnection Export Capacity	2,347 MW
Scheduled Energy Receipts	20,084 GWh
Scheduled Energy Deliveries	19,541 GWh
Scheduled Transmission Losses	490 GWh
Estimated Value of Electricity Transacted	\$1.0 Billion
Transmission Lines	6,829 km
Peak Demand	3,176 MW

### MISSION STATEMENT

The New Brunswick System Operator facilitates a fair, efficient and openly competitive market for electricity and provides for the well-planned, safe, reliable and economic operation of the interconnected electricity system for the region served.



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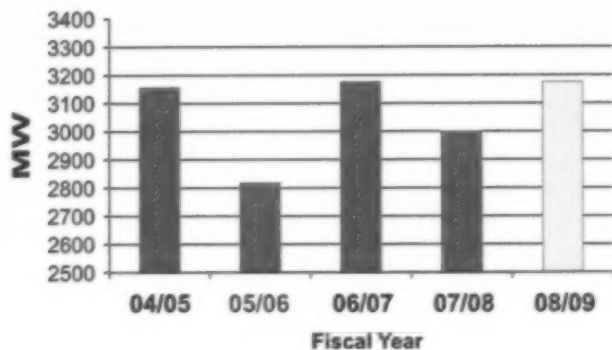
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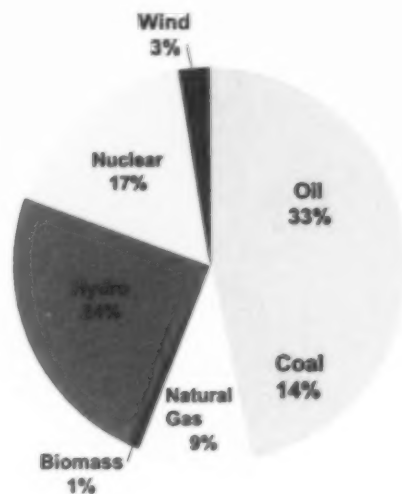




## PEAK DEMAND



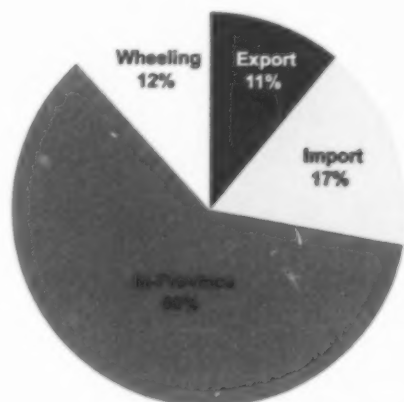
## INSTALLED GENERATING CAPACITY IN NEW BRUNSWICK



Fiscal Year	MW
2004/05	3154
2005/06	2807
2006/07	3187
2007/08	3000
2008/09	3176

Generating Capacity	MW
Oil	1,251
Coal	514
Natural Gas	353
Biomass	39
Hydro	893
Nuclear	635
Wind	96
<b>Total</b>	<b>3,781</b>

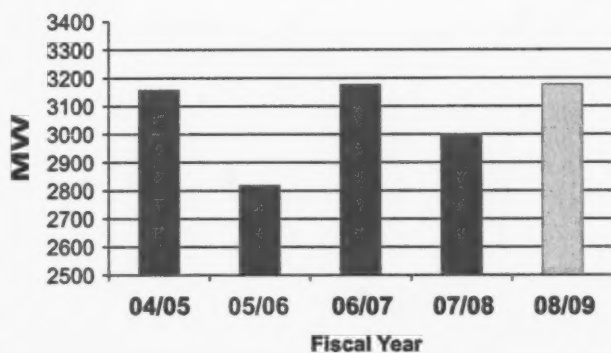
## ENERGY TRANSACTED THROUGH NEW BRUNSWICK



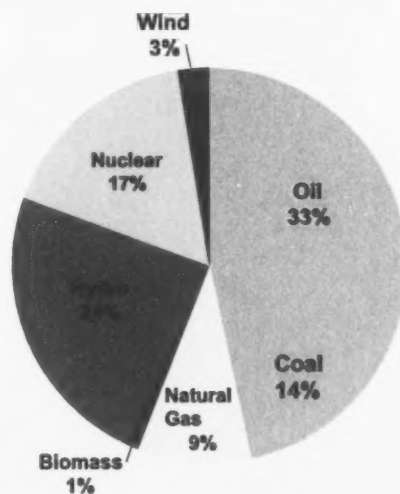
Energy Transacted Through	Gwh
Export	1,958,971
Import	3,025,508
In-Province	10,839,492
Wheeling	2,112,652
<b>Total</b>	<b>17,936,623</b>

## QUICK FACTS

### PEAK DEMAND



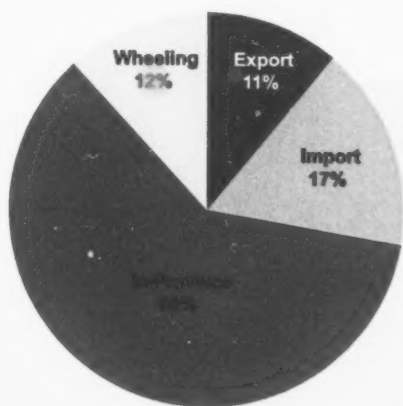
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## POWER SYSTEM OPERATIONS

The Power System Operations Group as the Maritime Reliability Coordinator is responsible for Resource Adequacy and reliability of the Bulk Power Electrical system, along with administration of the New Brunswick Electricity Market Rules, the New Brunswick System Operator Open Access Transmission Tariff, coordination and outage planning of Generation and Transmission Facilities.

Charged with 24/7 oversight and direction of the New Brunswick electricity grid, the Power System Operations (PSO) group maintained reliability during the past winter peak demand period without any significant problems. This was a major accomplishment given that the Point Lepreau Nuclear Generating Station was taken offline in April 2008 for an extensive refurbishment.

TransAlta Wind, in cooperation with local development partner Natural Forces Technologies Inc., developed the first 96 MW wind farm to begin commercial operation in New Brunswick. The Kent Hills Project, located near Moncton, New Brunswick, was completed December 31, 2008 and was successfully integrated into the electricity grid. Kent Hills will provide approximately 280,000 megawatt hours per year; enough electricity to meet the needs of approximately 17,300 homes. It is owned and operated by TransAlta.

Operations staff continues to represent the NBSO on a variety of North American Electric Reliability Corporation (NERC) and Northeast Power Coordinating Council (NPCC) operations' committees relating to reliability, restoration, operations and training. In October 2008, we were deemed fully compliant from a NERC Compliance Audit, which included recognition of our knowledgeable and dedicated staff.

We continue to integrate training into work schedules and as part of regular Operations meetings, as well as look for opportunities to incorporate learning into the workplace. Later in 2009, the majority of our NERC-certified System Operators are due to become re-certified, which requires them to successfully complete 200 NERC-approved Continuing Education Hours every three years in order to maintain Reliability Coordinator status.

### Challenges Going Forward

Looking forward, our next major initiative will be the implementation of a new SCADA system, which will not only upgrade the platform with the newest technology, but will also provide training opportunities for staff through the provision of a Simulator.

And with the increasing focus on wind energy, we are looking at options for a Wind Forecasting System that will assist the NBSO in incorporating wind into the grid.

The level of future retirement is pervasive across every region of Canada's electricity sector and NBSO is no exception. Within the PSO group, a number of Operators are eligible, or will be eligible to retire over the near term. Replacing an aging PSO workforce will be one of the biggest challenges facing NBSO. Given the fact that there is a 3 to 5 year training process required for new operators, NBSO has launched an initiative to start the recruitment process for new Power System Operators.



*"The audit team feels that NBSO takes compliance very seriously and understands the overall goal of the compliance program; namely to strive for a more reliable interconnected bulk power system."*

NPCC Audit Team





The Power System Engineering (PSE) group coordinates and undertakes both long-term and short-term planning studies, performs reliability assessments, and ensures compliance with reliability standards set by the Northeast Power Coordinating Council (NPCC) and the North American Electric Reliability Corporation (NERC).

### **2008/09 PSE Highlights**

**A number of studies resulted in the following major reports being published including:**

#### **1. 10-Year Assessment of the Adequacy of Generation and Transmission Facilities in New Brunswick 2008-2017**

This annual publication informs existing and potential Market Participants of the current and future outlook for the market and for the adequacy of the electricity system.

#### **2. Large Scale Wind Power in New Brunswick – A regional scenario study towards 2025**

The PSE group provided model data and support to Ea Energy Analyses (Ea) for their August 2008 report.

The scope of work provided by Ea comprises analyses of energy systems from a technical, economic and environmental approach, as well as analyses of energy and climate policy measures.

The key findings of the Ea report included:

The potential for economic deployment of 5,500 to 7,000 MW of wind power capacity in the Maritimes Area towards 2025, including 3,000 to 4,000 MW in New Brunswick and;

For large scale wind capacity to be achieved in the Maritimes Area, it is essential that there be a high level of cooperation between the markets in the Maritimes Area and the neighbouring systems in Québec and New England.

#### **3. NPCC 2008 Maritimes Area Interim Review of Resource Adequacy**

Covering the years 2009 to 2012, this review shows that the Maritimes Area will comply with the NPCC resource adequacy criterion that requires a loss of load expectation (LOLE) value of less than 0.1 days/year.

#### **4. The Electric Power System in New Brunswick – A Discussion Paper on Potential Generation and Transmission Developments**

With the Province's initiative to develop New Brunswick as an Energy Hub with substantially greater electricity exports into New England, this report provides an examination of the impacts and infrastructure needs related to possible scenarios of increased local generation, increased transmission with neighbouring systems, and potential generation projects in neighbouring systems that may impact New Brunswick.

The PSE group participated actively in committees, workshops, industry groups, and conferences. For example, presentations were made at the NPCC General Meeting in New York and the Canadian Wind Energy Association Annual Conference in Vancouver.

## Audit

The onsite compliance audit of the New Brunswick System Operator (NBSO) was conducted between October 14 and October 17, 2008 by the Northeast Power Coordinating Council (NPCC) and the North American Electric Reliability Corporation (NERC). The audit team evaluated NBSO compliance with forty reliability standards identified in the NERC 2008 Implementation Plan. The NBSO was found to be in full compliance with all applicable standards. Representatives of the New Brunswick Energy and Utilities Board were present during the complete audit process.

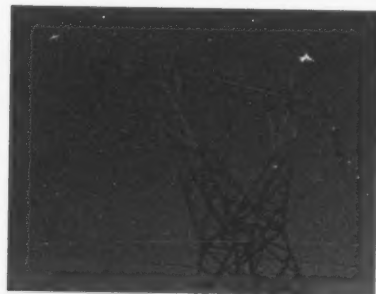
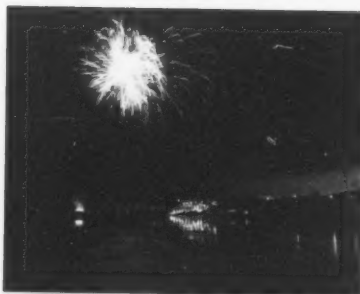
*"The audit team would like to thank the NBSO and to the NBSO audit preparation team for providing exceptional documentation, flexibility and cooperation throughout the audit process and to the subject matter experts present throughout the process for their cooperation, openness and knowledge."*

NPCC Audit Team

## Challenges for the Future

PSE is the NBSO point of contact for all new Connection Applications, including wind projects to the New Brunswick transmission grid. With greater public focus on issues such as reducing fossil fuel emissions, security of energy supply and opportunities to exploit the abundant and world class wind resources in New Brunswick, NBSO continues to receive a significant number of applications for new low-emission generation projects. PSE will be adding additional staff to its team in order to handle the volume of studies associated with these applications.

Within its role as the Reliability Coordinator (RC) for the Maritimes Area, PSE continues to work with neighbouring systems in Nova Scotia, Prince Edward Island and Northern Maine, on emerging issues such as wind forecasting, open transmission planning processes, enhanced data exchange, and compliance with NPCC and NERC standards.



## MARKET DEVELOPMENT AND SETTLEMENT

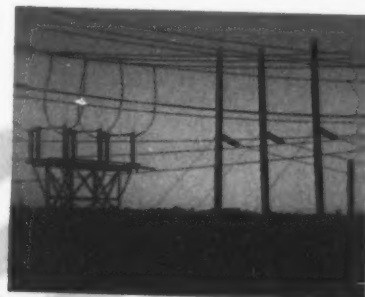
The Market Development and Settlement group strives to enhance the design of the market and ensure that the market is settled on a timely and accurate basis. Market development work includes monitoring the market's performance, making improvements to the open access transmission tariff and market rules, and monitoring market participant behaviours. Extensive stakeholder consultation and quality customer service are important to the group.

Regulatory activities, Market Rule design work, audits, and implementation of changes made for a very busy fiscal year in 2008/09.

Over the course of the year the Market Development and Settlement group put a substantial amount of effort into the two applications that NBSO filed with the New Brunswick Energy and Utilities Board for approval of changes to the Open Access Transmission Tariff in 2008/09. Among other things, the first application involved the development of a stakeholder consensus proposal on several issues pertaining to the treatment of Capacity-Based Ancillary Services. The development of the proposal required input from various groups at NBSO and several stakeholders. The result was a much better alignment of revenues, expenses, and value of Capacity-Based Ancillary Services. The application also included a mechanism for the recovery of costs associated with providing regulation and load following services required for the integration of wind farms in New Brunswick, Prince Edward Island and Nova Scotia.

The group worked extensively with the Market Advisory Committee to establish a suitable proposal for the integration of wind power generation into the market. Practices pertaining to energy scheduling, production forecasting, system dispatch, and settlement were all evaluated. By the end of the year some aspects of a design had been agreed upon while others had been explored in great detail but required further consideration.

An independent review of the settlement function was also undertaken and a final report will be available later in 2009. A review of metering totalization was undertaken and that work resulted in recommendations for enhancements to control processes. The review also led to a greater level of assurance that the meter data that is being provided to NBSO is being applied appropriately.



Changes in market participation, the addition of New Brunswick's first wind farm, implementation of changes to Capacity-Based Ancillary Services, and implementation of changes to the open access transmission tariff all required adaptation in the settlement process. As is always the case, the settlement group benefited immensely from the support of the NBSO IT group in the implementation of these changes.

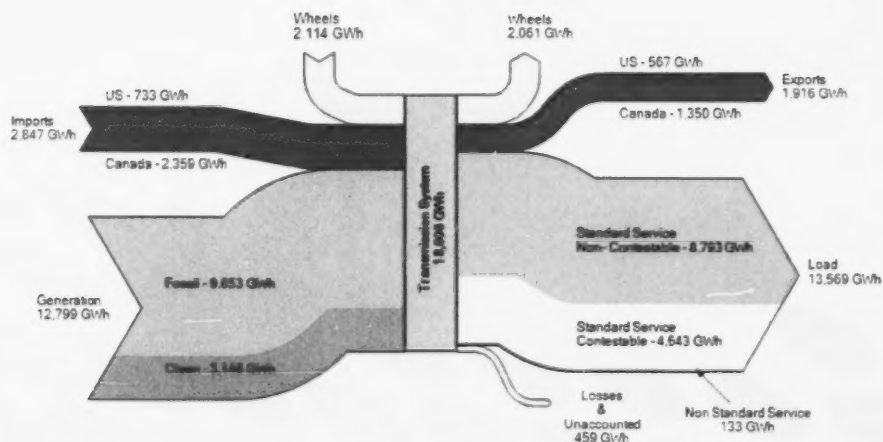
The group participated actively in committees, workshops, industry groups, and conferences. For example, presentations were made at a Marine Renewables conference in Rhode Island, the New England Governors and Eastern Canadian Premiers Conference in Maine, and a Canadian Wind Technology Road Mapping exercise in Toronto.

For 2009/2010 enhancements to the Tariff and the Market Rules are expected to continue. The settlement function will continue to be challenged by changes in market participation and the implementation of changes in practices. The experiences of the past year position the group to continue to perform well in upcoming years in the face of ongoing changes.

The following chart illustrates the nature of the physical bilateral transactions that took place on the New Brunswick grid in 2008/09.



Bilateral Market Transactions  
April 2008 to March 2009



The Information Technology and Infrastructure (ITI) work group is responsible for all Computer Systems and Applications for the NBSO, which are essential for the reliable operation of the bulk power system, the efficient and effective operation of the New Brunswick Electricity Market and for the support of the Maritime Reliability Coordinator Operator function. Implementing the NERC Critical Infrastructure Protection Standards and procuring a new SCADA/EMS, are major projects presently being undertaken. The Group is also responsible for security, operations and maintenance of the NBSO facilities. The NBSO ECC facility is classified as a Category 1 (high priority) critical infrastructure site by the New Brunswick Department of Public Safety.

This past year has been one of significant activity for the (ITI) group.

### **Impacts of Wind Energy**

In recent years, the New Brunswick government has put a greater emphasis on the environment and climate change. Wind Energy is an integral part of New Brunswick's plan to reduce the carbon footprint. Kent Hills wind farm, the first wind farm in the province, was brought online December 31, 2008. A great deal of work was carried out during the fiscal year to integrate wind power into the NBSO Market Optimization and Dispatch (MOD), Energy Scheduling and the Market Settlement and Billing (MSB) systems. Future enhancements to the NBSO computer systems are being explored to more effectively deal with the integration of wind power.

### **NERC Reliability Standards - Critical Infrastructure Protection**

The NBSO is dedicated to meeting and exceeding current and emerging reliability standards. This year, the NBSO has spent considerable time and effort in meeting the North American Electric Reliability Corporation's (NERC) Critical Infrastructure Protection (CIP) standards. These standards deal with the physical and electronic protection of critical cyber assets used in the management of the bulk electric system. They consist of 9 standards.

The NBSO assembled a team of engineers and IT professionals to deal with CIP standards. This group was responsible for updating existing policies and procedures as well as creating and implementing new policy and procedures where gaps existed.

#### **CIP Standards**

- CIP-001 Sabotage Reporting
- CIP-002 Critical Cyber Asset Identification
- CIP-003 Security Management Controls
- CIP-004 Personnel & Training
- CIP-005 Electronic Security-Perimeter(s)
- CIP-006 Physical Security of Critical Cyber Assets
- CIP-007 Systems Security Management
- CIP-008 Incident Reporting and Response Planning
- CIP-009 Cyber Security - Recovery Plans for Critical Cyber Assets

An agreement was reached with our network service provider to provide additional services and expertise to the NBSO in order to assist in meeting these standards. NERC CIP standards will evolve over time and will require ongoing effort in order to ensure continued compliance.

### **SCADA/EMS Replacement**

The process of replacing the Supervisory Control and Data Acquisition / Energy Management System (SCADA/EMS) began in 2008. A project team was assembled with participation of the IT, engineering and operations staff. The NBSO staff has worked diligently preparing a detailed request for proposals (RFP) for replacement of this system. A new SCADA/EMS system will allow the NBSO to more easily adapt to the changing industry and help meet emerging industry standards.

### **Infrastructure - New Office Space**

The NBSO has leased new office space. This space, available in the fall of 2009, will act as a Corporate Headquarters for the NBSO, while the current location will continue as the control centre (centre for operations). In the coming years, as the New Brunswick electricity market grows, this will allow the NBSO to grow to meet its mandate.

### **Emergency Power Systems Upgrade - Energy Control Center**

The ECC Emergency power system equipment (UPS/Batteries/Generator) has exceeded their expected life spans, and the loading at the control center has grown such that the system is presently undersized to meet requirements of the facility.

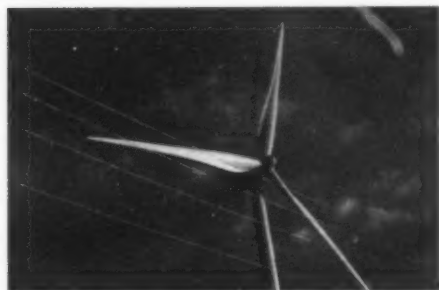


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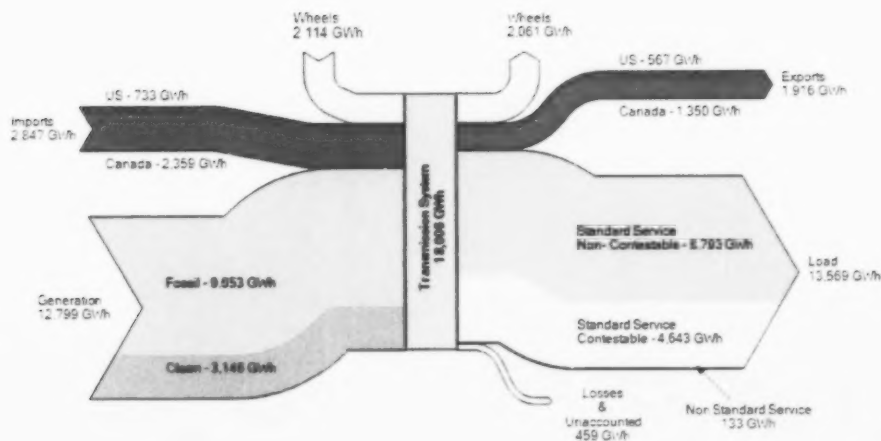
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April 2008 to March 2009



The Information Technology and Infrastructure (ITI) work group is responsible for all Computer Systems and Applications for the NBSO, which are essential for the reliable operation of the bulk power system, the efficient and effective operation of the New Brunswick Electricity Market and for the support of the Maritime Reliability Coordinator Operator function. Implementing the NERC Critical Infrastructure Protection Standards and procuring a new SCADA/EMS, are major projects presently being undertaken. The Group is also responsible for security, operations and maintenance of the NBSO facilities. The NBSO ECC facility is classified as a Category 1 (high priority) critical infrastructure site by the New Brunswick Department of Public Safety.

This past year has been one of significant activity for the (ITI) group.

### **Impacts of Wind Energy**

In recent years, the New Brunswick government has put a greater emphasis on the environment and climate change. Wind Energy is an integral part of New Brunswick's plan to reduce the carbon footprint. Kent Hills wind farm, the first wind farm in the province, was brought online December 31, 2008. A great deal of work was carried out during the fiscal year to integrate wind power into the NBSO Market Optimization and Dispatch (MOD), Energy Scheduling and the Market Settlement and Billing (MSB) systems. Future enhancements to the NBSO computer systems are being explored to more effectively deal with the integration of wind power.

### **NERC Reliability Standards - Critical Infrastructure Protection**

The NBSO is dedicated to meeting and exceeding current and emerging reliability standards. This year, the NBSO has spent considerable time and effort in meeting the North American Electric Reliability Corporation's (NERC) Critical Infrastructure Protection (CIP) standards. These standards deal with the physical and electronic protection of critical cyber assets used in the management of the bulk electric system. They consist of 9 standards.

The NBSO assembled a team of engineers and IT professionals to deal with CIP standards. This group was responsible for updating existing policies and procedures as well as creating and implementing new policy and procedures where gaps existed.

### **CIP Standards**

- CIP-001 Sabotage Reporting
- CIP-002 Critical Cyber Asset Identification
- CIP-003 Security Management Controls
- CIP-004 Personnel & Training
- CIP-005 Electronic Security Perimeter(s)
- CIP-006 Physical Security of Critical Cyber Assets
- CIP-007 Systems Security Management
- CIP-008 Incident Reporting and Response Planning
- CIP-009 Cyber Security - Recovery Plans for Critical Cyber Assets

An agreement was reached with our network service provider to provide additional services and expertise to the NBSO in order to assist in meeting these standards. NERC CIP standards will evolve over time and will require ongoing effort in order to ensure continued compliance.

### **SCADA/EMS Replacement**

The process of replacing the Supervisory Control and Data Acquisition / Energy Management System (SCADA/EMS) began in 2008. A project team was assembled with participation of the IT, engineering and operations staff. The NBSO staff has worked diligently preparing a detailed request for proposals (RFP) for replacement of this system. A new SCADA/EMS system will allow the NBSO to more easily adapt to the changing industry and help meet emerging industry standards.

### **Infrastructure - New Office Space**

The NBSO has leased new office space. This space, available in the fall of 2009, will act as a Corporate Headquarters for the NBSO, while the current location will continue as the control centre (centre for operations). In the coming years, as the New Brunswick electricity market grows, this will allow the NBSO to grow to meet its mandate.

### **Emergency Power Systems Upgrade - Energy Control Center**

The ECC Emergency power system equipment (UPS/Batteries/Generator) has exceeded their expected life spans, and the loading at the control center has grown such that the system is presently undersized to meet requirements of the facility.

In fiscal year 2009/10, the ECC Emergency power system will be upgraded with new batteries, two new full load capable UPS units to replace the three existing units, and replace the existing generator to meet current loading requirements.

#### **NPCC Cross Border Satellite Communications System**

Iridium Satellite phones have been installed at the primary control centre to facilitate communication between NPCC Reliability Coordinators and NPCC headquarters. These phones are tested quarterly by the NPCC IST-02 working group. An additional phone will be installed at the backup control centre.

#### **Data Communication with Hydro-Québec (HQ)**

An ICCP circuit for real-time data exchange has been set up between the NBSO and Hydro-Québec.

#### **Data Communication with Maritime Electric Company Limited (MECL)**

An ICCP circuit for real-time data exchange has been set up between the NBSO and MECL. The NBSO Power System Engineering group is now in the process of configuring the data values to be exchanged.



Activity remained high during the fiscal year, particularly in the regulatory area with the NBSO making two major applications to our regulator, the New Brunswick Energy and Utilities Board (EUB). The first of these applications, initiated in May 2008, sought to more properly align ancillary services rates with the costs associated with each service, thereby mitigating an existing mismatch between the two and eliminating cross-subsidization between ancillary services rate classes. This mismatch/cross-subsidization issue was also the subject of a separate, but related proceeding before the EUB respecting the calculation and allocation of the NBSO's operating surplus from the previous fiscal year. The convergence of these two proceedings resulted in revisions to the NBSO's May application whereby the NBSO sought fundamental changes to the methodology for calculating charges for ancillary services. More specifically, the NBSO sought approval to move away from fixed rates for ancillary services to charges based on an EUB-approved annual revenue requirement for Schedules 1 and 2 and actual monthly expenditures for capacity-based ancillary services (CBAS).

In a decision dated November 26, 2008, the EUB approved, *inter alia*, the rates for ancillary services requested by the NBSO for 2008/09 and the proposed new methodology for Schedules 1 and 2 on a go-forward basis. The EUB did not approve the proposed new methodology in respect to CBAS.

The second major application to the EUB flowed from the Board's approval of the above-described change in methodology respecting Schedules 1 and 2 ancillary services. In January 2009, the NBSO filed the first of what will now be an annual application for approval of its Schedules 1 and 2 revenue requirements for the upcoming fiscal year. Hearings were held on March 16 and 17 and June 15 and the NBSO is pleased to report that its proposed revenue requirements were approved with only minor variations. As this annual process continues, NBSO will work with EUB staff and intervenors to make the process as transparent and efficient as possible.

### Technical Conference

NBSO held a Technical Conference on April 8, 2008, in connection with proposed changes to the Tariff. The Conference provided Market Participants, members of the Market Advisory Committee, Transmitters, representatives of the New Brunswick Department of Energy, and staff of the EUB, with an opportunity to review and discuss the proposed changes to the Tariff in advance of the hearing. We anticipate a full hearing on these matters will be held in 2010.

### NBSO Joins with Regulatory Authorities to Enhance Electric Grid Reliability

The Province of New Brunswick signed Memorandums of Understanding (MOU) with three organizations to improve the reliability of the bulk power system in this region.

The MOUs were signed by the Department of Energy, the New Brunswick System Operator, the North American Electric Reliability Corporation (NERC), and the Northeast Power Co-ordinating Council, Inc. (NPCC).

Under the MOUs, New Brunswick recognized the role of NERC as the electric reliability organization for North America.

With the proclamation of the Electricity Act in 2004, New Brunswick became one of the first provinces to introduce mandatory requirements for bulk power system reliability. Under the Act, NBSO is responsible for adopting and enforcing reliability standards applicable to owners, users and operators of the New Brunswick bulk power system.

*"As we move forward in developing the Energy Hub, we work closely with the NBSO to ensure that the integrity and reliability of the grid continues. Our MOU is testimony to this."*

Hon. Jack Keir  
Minister of Energy  
Province of New Brunswick

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With the proclamation of the Electricity Act in 2004, New Brunswick became one of the first provinces to introduce mandatory requirements for bulk power system reliability. Under the Act, NBSO is responsible for adopting and enforcing reliability standards applicable to owners, users and operators of the New Brunswick bulk power system.

Through the MOUs, the NBSO continues to fulfil its objects under the Act in regards to participating with other authorities in the development of standards and criteria relating to the reliability of transmissions systems. Through NERC standards (currently over 100), NBSO ensures that the bulk power system in New Brunswick, which forms part of the greater northeastern grid, is operated and planned in a reliable manner.

*"We are pleased to join with NBSO in their continuing efforts to enhance reliability in New Brunswick. The recent MOUs are evidence of NBSO's and the New Brunswick Department of Energy's ongoing leadership in safeguarding the North American electric grid from widespread outages."*

Rick Sergel  
President and CEO  
NERC

### **NBSO Annual Energy Conference**

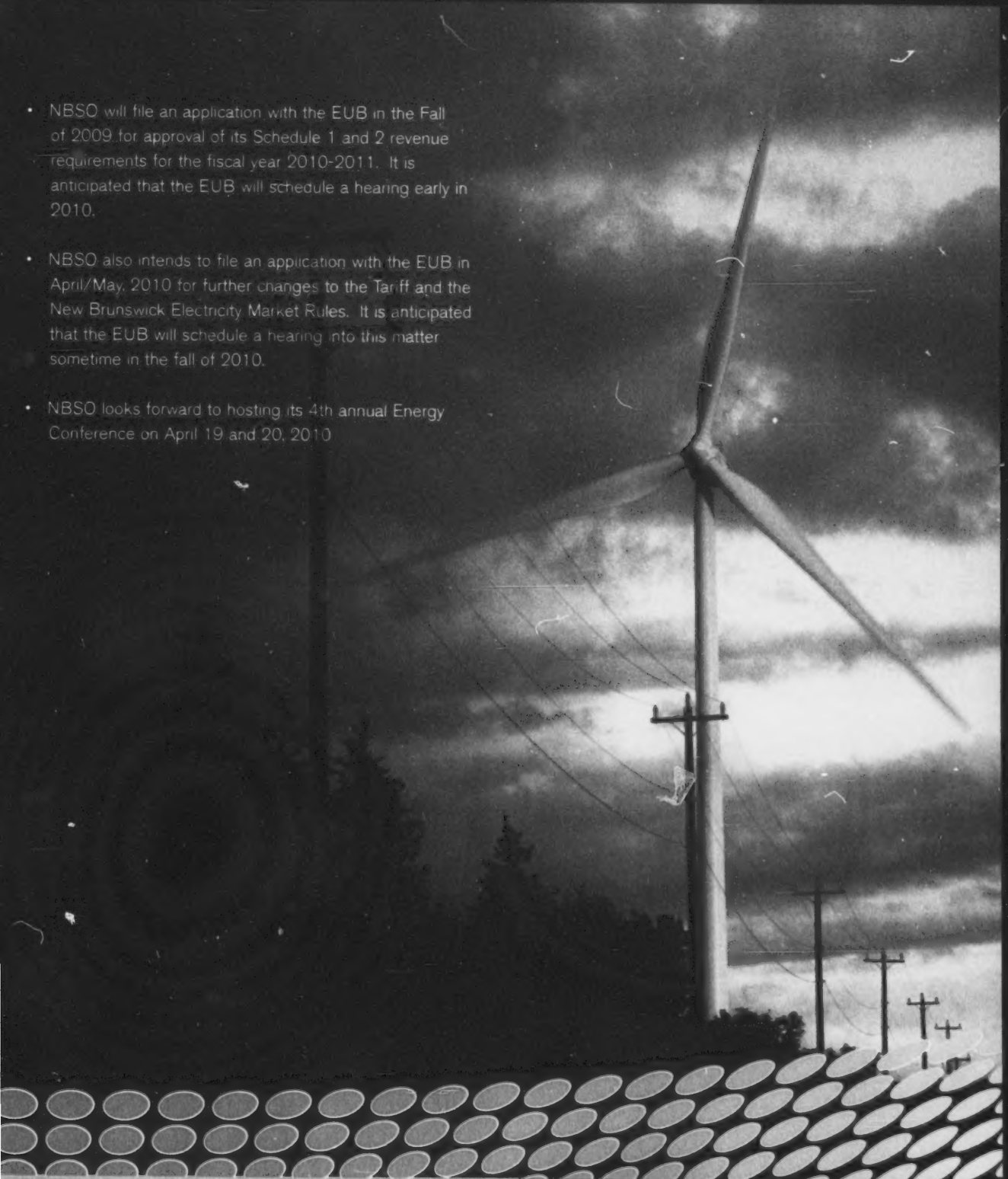
The NBSO held it's Annual Energy Conference at the Delta hotel in Saint John, New Brunswick, May 16 and 17, 2008. Approximately 210 people attended the two-day session, bringing together executives from alternative and traditional energy companies, energy investors, local interest groups, present and potential Market Participants, Market Advisory Committee members, Regulators, and interested parties.

This highly successful conference provided an opportunity to discuss a variety of current and future topics. Approximately 21 presentations were given covering the following subjects:

- Local and Regional Market Opportunities
- Environmental Drivers
  - New Brunswick Climate Change Plans
  - Regional Greenhouse Gas Initiatives
  - Renewable Portfolio Requirements Across the Region
- Projects (Supply Options)
  - Lower Churchill Project
  - Point Lepreau Refurbishment
  - New Nuclear Opportunities at Point Lepreau
  - LNG Status and Opportunities
  - Fundy Tidal Projects
- Transmission Options
  - New England Transmission Studies
  - Maritime Transmission Considerations
- Demand Side Options
  - Building a Culture of Conservation
  - Smart Meters and Load Control
- Wind Developments
  - Nova Scotia Wind Study
  - Regional Wind Study
  - System Operator and NICE Studies
  - Wind Forecasting
  - Mars Hill Wind Farm
  - Community Wind Power in New Brunswick
  - Wind Industry Perspectives
  - Wind integration developments



- NBSO will file an application with the EUB in the Fall of 2009 for approval of its Schedule 1 and 2 revenue requirements for the fiscal year 2010-2011. It is anticipated that the EUB will schedule a hearing early in 2010.
- NBSO also intends to file an application with the EUB in April/May, 2010 for further changes to the Tariff and the New Brunswick Electricity Market Rules. It is anticipated that the EUB will schedule a hearing into this matter sometime in the fall of 2010.
- NBSO looks forward to hosting its 4th annual Energy Conference on April 19 and 20, 2010



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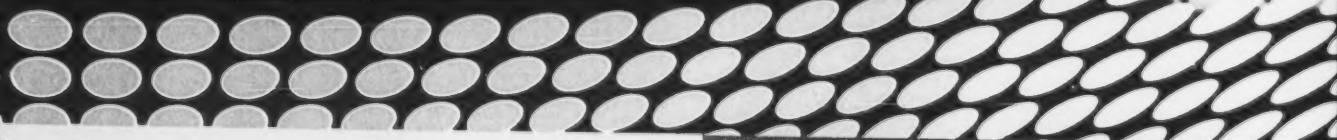
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  - Smart Meters and Load Control
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- NBSO looks forward to hosting its 4th annual Energy Conference on April 19 and 20, 2010





## NBSO BOARD OF DIRECTORS AND CORPORATE OFFICERS

---



**Curtis Howe, P.Eng.**  
| **Chairman** |  
President, Mariner Partners, Inc.,  
Saint John, NB



**Robert W. Saintonge**  
| **Chair, Human Resources Committee** |  
Financial Consultant and  
Former Deputy Minister,  
Province of New Brunswick



**Fred Hutchinson**  
| **Member, Human Resources and  
Governance Committee** |  
Business Broker with  
Cooke Insurance Group



**Anne Hickey**  
| **Audit Committee Member** |  
Labour Market Information Analyst  
Service Canada



**Brian H. Curry, CA**  
| **Chair Audit Committee** |  
Retired Partner, Curry & Betts,  
Chartered Accountants



**Sylvain Gignac**  
President and CEO



**Kevin C. Roherty, BBA, LL.B.**  
| **Secretary and General Counsel** |



## EXECUTIVE TEAM

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**Sylvain Gignac**  
President and CEO



**Jean Finn, BBA**  
Vice-President  
Development and  
Governmental Affairs



**Kevin C. Roherty, LL.B.**  
Secretary and General Counsel



**Lynne West, CMA**  
Controller



**George Porter, P.Eng.**  
Director, Market Development & Settlement



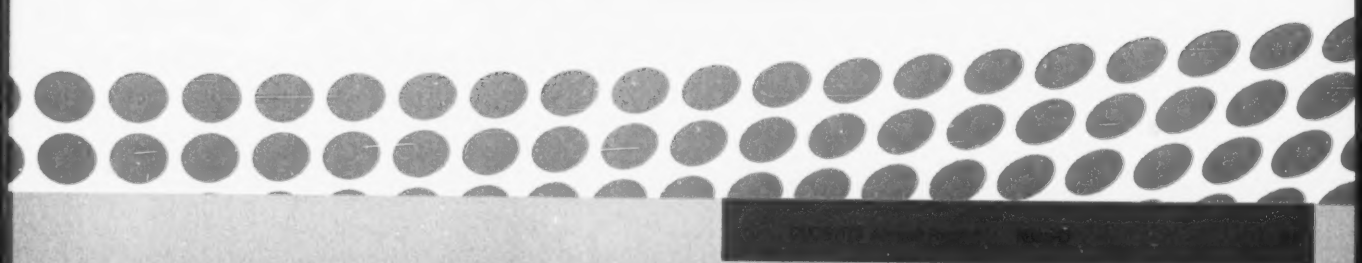
**Alden Briggs, P.Eng.** Director  
Power System Engineering

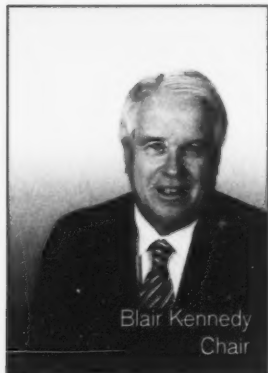


**Ross Stairs** Director  
Power System Operations



**Dave Daley, P.Eng.** Director,  
Information Technology and Infrastructure





Blair Kennedy  
Chair

The Market Advisory Committee (MAC) was established pursuant to s. 50(2) of the Electricity Act and in accordance with the New Brunswick Electricity Market Rules. The Committee is an important part of the electricity market structure as it plays a key role in ensuring a co-ordinated, consistent and effective voice for market stakeholders.

The Market Advisory Committee (MAC) consists of a group of 14 industry participants representing a broad range of interests. The MAC has contributed significantly to the NBSO by providing input on market issues, making recommendations to the NBSO Board of Directors, and advancing important discussions that will help guide the development of New Brunswick's electricity market. The commitment and collaboration from participants representing varied industry interests provides the foundation for meaningful and open consultation in relation to the Market Rules, Market Procedures, issues pertaining to the functions of the NBSO under the Act, revisions to the Open Access Transmission Tariff (Tariff), and market monitoring; as well as forward-looking issues and a collective vision for the market.

During the fiscal year, the MAC met on a bi-monthly basis to review proposed revisions to the Market Rules, market Procedures, and the Tariff.

Highlights for the MAC during the fiscal year were as follows:

- Development of a Capacity-Based Ancillary Service (CBAS) Straw Man Model that formed the foundation for the Settlement of the CBAS surplus and the NBSO's proposed changes to the Tariff.
- Review and implementation of Market Procedure MP-08 (Reliability Compliance Program), to ensure that New Brunswick meets its reliability obligations with respect to the US-based NERC and NPCC requirements.
- Amendment to Market Rule 6.10.8 to reflect new timing rules for balanced schedules deadlines to ensure that these schedules align with external Control Areas.
- Extensive review and proposed amendments to the Market Rules to accommodate Non-Dispatchable Variable (NDV) Generation (primarily wind) integration onto the NBSO-Controlled Grid. These proposed amendments recognize the unique production limitations of NDV Generators and exempt them from certain existing Market Rules which are not workable.
- Development of a process that allows those market Participants who wish to contractually supply CBAS to have the opportunity to undercut their previous bid. All new contracts are required to have a monthly and hourly price component.
- Review of the NBSO's State of the Market Report and 10-Year Assessment of the Adequacy of Generation Transmission Facilities.

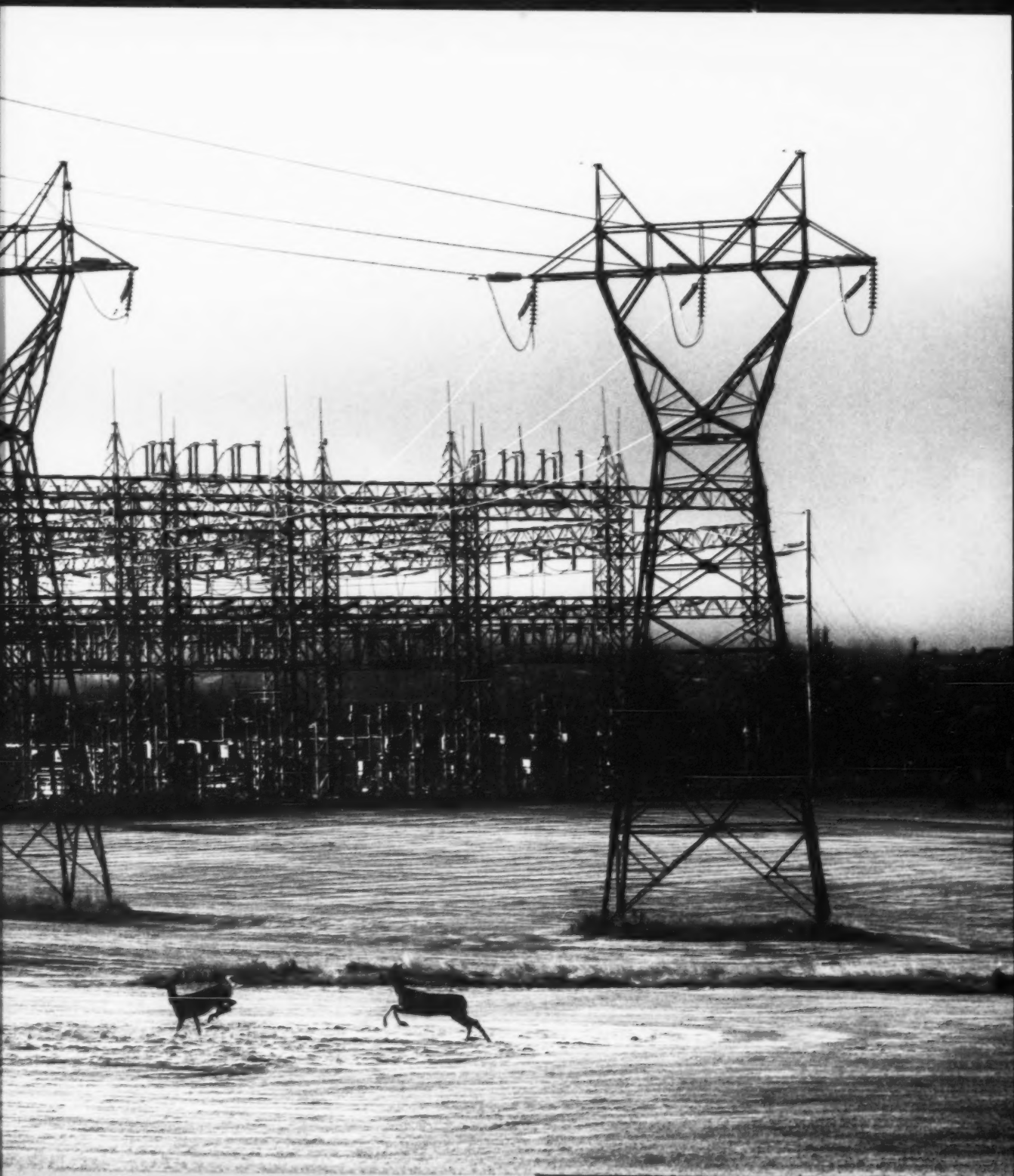
The Market Advisory Committee is a multi-stakeholder group that currently includes members from the following sectors:

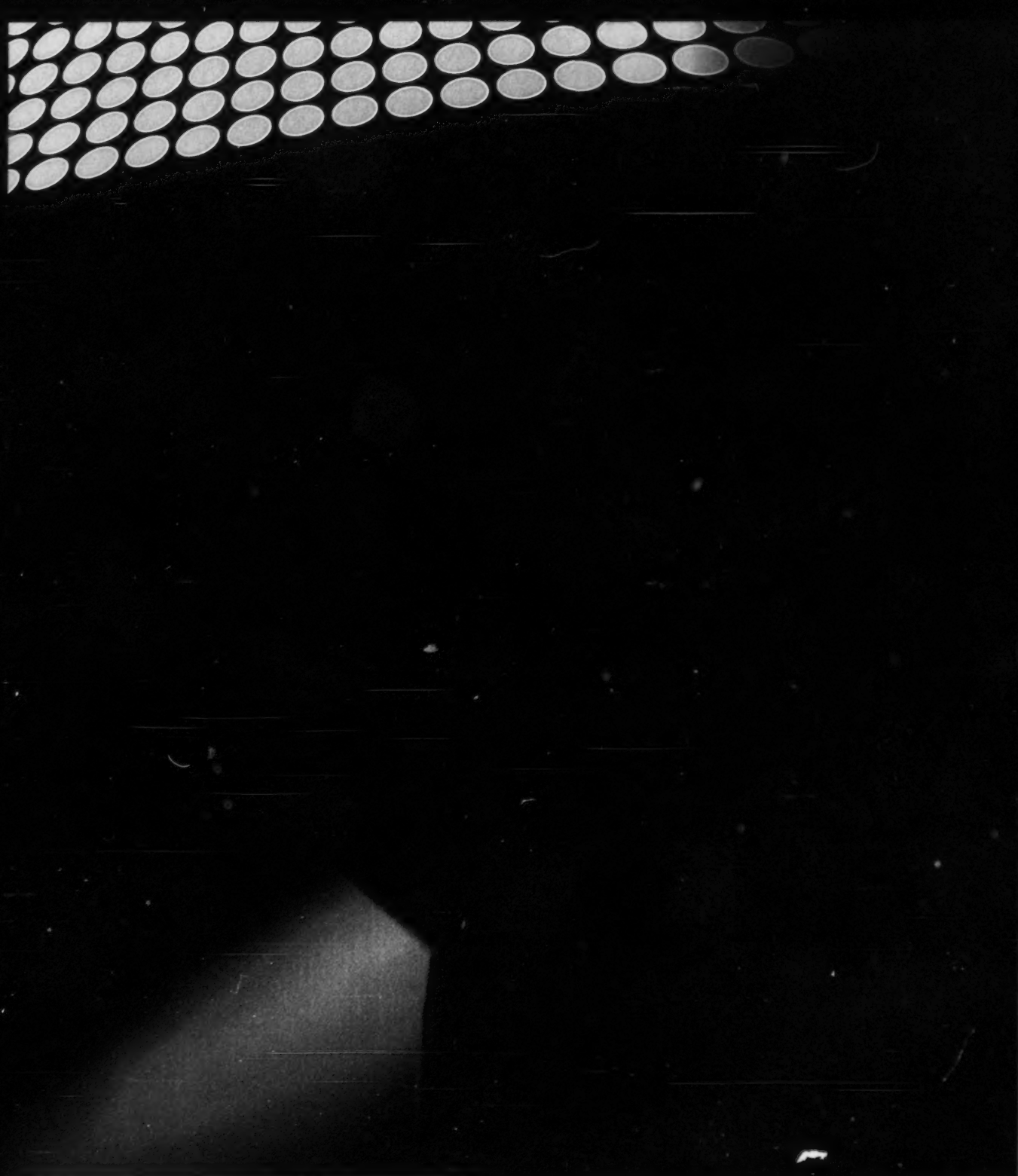
Sector	Representative
NB Power Generation	Kirby O'Donnell NB Power Generation Corporation
Independent Generators	Stacy Dimou Oxbow-Sherman Energy
Marketers	Ed Howard Integrus Energy Services Inc.
Transmission Customer	Ron LeBlanc Maritime Electric Company Limited
NB Power Transmission Corporation	Brian Scott NB Power Transmission Corporation
NB Power Distribution and Customer Service Corporation	Blair Kennedy (Chair) NB Power Distribution & Customer Service Corporation
Non-NB Power Distributors	Dan Dionne Village of Perth-Andover
Self-Generation	Andrew Booker Lake Utopia Paper
Large Industrials Directly Connected to Transmission	Ron Beaulieu Fraser Timber Ltd.
Non-Eligible Customers	Vacant in 2008/09
Environmental Interests	Vacant in 2008/09
Alternative Generator Class	Rob Apold SUEZ Renewable Energy (NA)
NB Energy Efficiency and Conservation Agency	Lesley Rogers Efficiency New Brunswick
System Operator	George Porter New Brunswick System Operator











# Financials

## **NEW BRUNSWICK SYSTEM OPERATOR FINANCIAL STATEMENTS MARCH 31, 2009 (IN THOUSANDS OF DOLLARS)**

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Management's Statement of Responsibility	29
Balance Sheet	30
Statement of Operations and Deficit	31
Statement of Cash Flows	32
Notes to the Financial Statements	33

PricewaterhouseCoopers LLP  
Chartered Accountants  
300 Brunswick House  
44 Chipman Hill, PO Box 789  
Saint John, New Brunswick,  
Canada E2L 4B9  
Telephone +1 (506) 632 1810  
Facsimile +1 (506) 632 8997

June 18, 2009

## Auditors' Report

To the Board of Directors of  
New Brunswick System Operator

We have audited the balance sheet of **New Brunswick System Operator (NBSO)** as at March 31, 2009 and the statements of operations and changes in net assets and cash flows for the year then ended. These financial statements are the responsibility of NBSO's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of NBSO as at March 31, 2009 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

*PricewaterhouseCoopers LLP*

Chartered Accountants

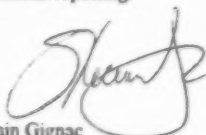
## MANAGEMENT'S STATEMENT OF RESPONSIBILITY

The financial statements of the New Brunswick System Operator (NBSO) were prepared by management, in accordance with Canadian generally accepted accounting principles which involve the use of significant accounting judgments and estimates in selecting and applying appropriate accounting principles.

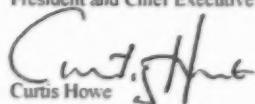
In discharging its responsibility for the integrity and fairness of the financial statements, management maintains systems of internal controls necessary to provide reasonable assurance that the accounting records are reliable, and that NBSO's assets are properly safeguarded. Internal Audit conducts reviews to ensure that the corporation's internal controls and procedures are adequate, consistent and applied uniformly.

The independent audit firm of PricewaterhouseCoopers LLP, Chartered Accountants, has audited and reported on the financial statements. Their opinion is based on their audit conducted by them in accordance with Canadian generally accepted auditing standards to obtain reasonable assurance that the financial statements are free of material misstatement.

The Board of Directors is responsible for evaluating management in the performance of their financial reporting responsibilities, and has approved these financial statements. The Board of Directors reviews and recommends approval of the financial statements and meets periodically with management, the independent auditors and the internal auditor, concerning internal controls and all other matters relating to financial reporting.



Sylvain Gignac  
President and Chief Executive Officer



Curtis Howe  
Chairman



# New Brunswick System Operator

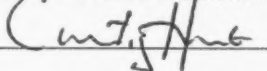
## Balance Sheet

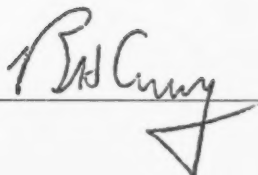
As at March 31, 2009

(in thousands of dollars)

	2009 \$	2008 \$
<b>Assets</b>		
<b>Current assets</b>		
Cash	2,329	3,364
Accounts receivable	11,137	10,329
Prepaid expenses	130	89
	<u>13,596</u>	<u>13,782</u>
<b>Property, plant and equipment (note 3)</b>	<u>2,660</u>	<u>2,744</u>
	<u>16,256</u>	<u>16,526</u>
<b>Liabilities</b>		
<b>Current liabilities</b>		
Accounts payable and accrued liabilities	11,389	10,450
Deferred regulatory liabilities (note 4)	1,963	3,019
Current portion of capital lease obligations (note 5)	92	84
	<u>13,444</u>	<u>13,553</u>
<b>Accrued benefit liability (note 6)</b>	244	313
<b>Obligations under capital lease, net of current portion (note 5)</b>	<u>2,568</u>	<u>2,660</u>
	<u>16,256</u>	<u>16,526</u>

Approved by the Board of Directors

 Chairman

 Director

**New Brunswick System Operator**  
**Statement of Operations and Changes in Net Assets**  
**For the year ended March 31, 2009**

(in thousands of dollars)

	2009 \$	2008 \$
<b>Revenues</b>		
Transmission:		
Point-to-point tariff	32,872	27,553
Network tariff	48,456	50,725
Power factor penalty	1,028	1,751
	<hr/>	<hr/>
Ancillary services	82,356	80,029
Miscellaneous	17,294	16,657
	1,194	881
	<hr/>	<hr/>
	100,844	97,567
<b>Expenses</b>		
Transmission	82,356	80,029
Ancillary services	7,284	7,067
Operation, maintenance and administration	9,199	7,576
Amortization	84	72
	<hr/>	<hr/>
	98,923	94,744
<b>Other income (expense)</b>		
Interest income	94	148
Interest expense on capital lease	(252)	(252)
	<hr/>	<hr/>
	(158)	(104)
<b>Deferral of regulatory liabilities</b>		
	<hr/>	<hr/>
	(1,763)	(2,719)
<b>Net profit for the year and net assets</b>	<hr/>	<hr/>
	-	-

# New Brunswick System Operator

## Statement of Cash Flows

For the year ended March 31, 2009

(in thousands of dollars)

	2009 \$	2008 \$
<b>Cash provided by (used in)</b>		
<b>Operating activities</b>		
Net profit for the year	-	-
Items not affecting cash		
Amortization	84	72
Net change in non-cash working capital items	(966)	1,291
Net change in accrued benefit liability	(69)	103
	<u>(951)</u>	<u>1,466</u>
<b>Financing activities</b>		
Principal repayments under capital lease	<u>(84)</u>	<u>(72)</u>
<b>Net (decrease) increase in cash during the year</b>	<b>(1,035)</b>	<b>1,394</b>
<b>Cash – Beginning of year</b>	<u><b>3,364</b></u>	<u><b>1,970</b></u>
<b>Cash – End of year</b>	<u><b>2,329</b></u>	<u><b>3,364</b></u>
<b>Cash flows from operating activities include</b>		
Interest received	94	148
Interest paid	252	252

# New Brunswick System Operator

## Notes to Financial Statements

For the year ended March 31, 2009

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(in thousands of dollars)

### 1 Nature of operations

New Brunswick System Operator ("NBSO") is an independent, government, not-for-profit entity responsible for directing the operation of the transmission system, administering the Open Access Transmission Tariff (OATT), and is the reliability coordinator for the Maritime area.

NBSO has its own independent Board of Directors and its functions are carried out by the employees located at New Brunswick Power Transmission's (NBPT) Energy Control Centre, 77 Canada Street, Fredericton, NB. Some are direct employees of NBSO (10) while the remainder (approximately 37) are seconded under contract from NBPT.

Income arising from the operation of NBSO is exempt from federal and provincial income taxes.

### 2 Significant accounting policies

The accompanying financial statements have been prepared in accordance with Canadian generally accepted accounting principles and reflect the following significant accounting policies.

#### Regulation

NBSO is subject to regulation by the New Brunswick Energy and Utilities Board (EUB) (formerly the New Brunswick Public Utilities Board). The regulations cover such matters as tariff rates and accounting policies. NBSO's accounting policies conform to generally accepted accounting principles in the electricity transmission industry in Canada and also reflect the policies prescribed by the EUB. Costs and credits are deferred on the balance sheet as regulatory assets and liabilities for amounts which would otherwise be included in earnings, when authorized to do so.

#### Revenue recognition

Monthly settlements of market participants' energy imbalance and residual monthly costs are not reflected in NBSO's Statement of Operations since they do not represent revenues or expenses of NBSO as NBSO merely acts as an intermediary in the settlement process. In this role, NBSO receives and disburses funds to/from market participants in the month following the month transactions occurred.

# New Brunswick System Operator

## Notes to Financial Statements

For the year ended March 31, 2009

(in thousands of dollars)

### 2 Significant accounting policies (continued)

#### Revenue recognition (continued)

NBSO's approved tariff, the OATT, allows recovery of NBSO's operating expenses through Schedule I services provided to market participants. The revenue from Schedule I is earned monthly, weekly, daily or hourly dependent upon transmission reservations. Market participants are then billed for such services in the subsequent month. The method of recovery of Schedule I and II costs will change commencing April 2009 as per the November 26, 2008 decision of the EUB. Monthly Schedule I and II revenues collected from market participants will be based on their transmission usage as a proportion of total usage multiplied by one twelfth of the annual revenue requirement.

Transactions from bilateral contracts between market participants are not included as transactions of NBSO.

Other ancillary services and miscellaneous revenues are recognized as the related services are provided.

Transmission revenues, ancillary service revenues, energy imbalances and residual monthly costs are calculated based on metering data provided by market participants and transmitters. The accuracy of these amounts is dependent upon third party meter data collection, estimation and validation procedures which are not the responsibility of the NBSO.

Transmission revenues (and expenses), ancillary service revenues, and energy settlements for the year are net of \$18, \$13 and \$1,331 adjustments relating to prior years respectively, resulting from multi month adjustments that were made in July 2008 and February 2009 arising from incorrect use of metering data in billings and settlements. In total these items represent less than 0.1% of total energy transaction flows across the grid for the year. NBSO has had a review of the meter mapping diagrams and totalization process performed to ensure that all required receipt and delivery points on the transmission system were identified in TMeters and that only those points were used in billing and settlements. Several procedural recommendations were adopted to enhance the integrity of the data in the metering system and the totalization of that data.

#### Property, plant and equipment

NBSO has an arrangement with NBPT in which it leases the Energy Control Centre, which has been treated as a capital lease in accordance with the recommendations of EIC 150 "Determining whether an arrangement contains a lease". This property, plant and equipment is carried at cost less accumulated amortization. Amortization has been computed at rates equal to the principal lease repayments using the effective interest method, which is sufficient to amortize the cost of the property, plant and equipment over their estimated useful lives as follows:

Buildings	32 years
Equipment	7 years
Security system	10 years

#### Foreign exchange transactions

Foreign currency revenues and expenses are translated into Canadian dollars at the rate of exchange prevailing at the transaction date. Monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars at rates of exchange prevailing at the balance sheet date. The resulting foreign currency exchange gains and losses are included in the determination of net income for the year.



# New Brunswick System Operator

## Notes to Financial Statements

For the year ended March 31, 2009

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(in thousands of dollars)

### 2 Significant accounting policies (continued)

#### Cash

Cash consists of cash and short-term deposits with original maturities of three months or less held with banks. They are classified as financial assets held-for-trading and carried at fair value.

#### Financial assets and liabilities

Accounts receivable are classified as Loans and Receivables and accounts payable, and accrued liabilities, deferred regulatory liabilities and capital lease obligations are classified as Other Financial Liabilities. These financial assets and liabilities are initially measured at fair value and after initial recognition they are measured at amortized cost using the effective interest method.

#### Employee benefit plans

Benefit obligations for defined benefit post-retirement plans are determined by independent actuaries using the project benefit method prorated on service and management's best estimate of salary escalation and retirement ages of employees.

The benefits charge or credit recognized consists of:

- the aggregate of the actuarially computed cost of benefits provided in respect of the current period's service;
- imputed interest on the accrued benefit obligation;
- the amortization of past service costs from plan amendments, over the average remaining service period of employees active at the date of amendment; and
- the amortization of experience gains or losses, in excess of 10% of the accrued benefit plan obligation at the beginning of the period over the average remaining service period of employees.

Defined contribution plan accounting is applied to multi-employer defined benefit pension plans for which the NBSO has insufficient information to apply defined benefit plan accounting. The benefit cost is the NBSO's required contributions to the plan.

#### Management estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from the estimates.

# New Brunswick System Operator

## Notes to Financial Statements

For the year ended March 31, 2009

(in thousands of dollars)

### 3 Property, plant and equipment

	2009		2008	
	Cost \$	Accumulated amortization \$	Net \$	Net \$
Building	2,414	58	2,356	2,373
Equipment	445	213	232	294
Security system	77	5	72	77
	<u>2,936</u>	<u>276</u>	<u>2,660</u>	<u>2,744</u>

The above assets represent the assets of the Energy Control Centre leased from NBPT (note 5).

### 4 Deferred regulatory liabilities

The following regulatory liabilities were included in the "Deferred Regulatory Liabilities" line on the balance sheet:

	Unforeseen future events \$	Surplus (Deficit) \$	Total \$
March 31, 2008	300	2,719	3,019
Distributions in year	(100)	(2,719)	(2,819)
Deferrals in year	—	1,763	1,763
March 31, 2009	<u>200</u>	<u>1,763</u>	<u>1,963</u>

The PUB previously approved the retention by NBSO of \$300 to cover unforeseen future events. In 2008, a Settlement Agreement was filed with the EUB and became part of the application for changes to the tariff. In its decision of November 26, 2008 the EUB approved the elimination of the retained surplus account. \$100 was included in the rebate of 2007/08 surplus. The remaining \$200 is to be rebated with the surplus from 2008/09.

In addition, the PUB decided that it is not appropriate for NBSO as a not-for-profit entity to have a surplus or a deficit. The surplus of \$2,719 reported in 2008 was distributed to market participants in December 2008, and the current year's surplus has been deferred and is expected to be rebated later in calendar 2009.

## New Brunswick System Operator

Notes to Financial Statements

For the year ended March 31, 2009

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(in thousands of dollars)

### 5 Obligations under capital lease

Effective April 30, 2005, NBSO entered into an agreement with NBPT under which NBSO became responsible for the full cost of the Energy Control Centre. This arrangement has been accounted for as a capital lease. Interest is being charged at 9% and monthly payments of principal and interest amount to \$20 for the building and \$8 for the equipment and security system.

The minimum annual lease payments under this arrangement are as follows:

	\$
Year ending March 31, 2010	336
2011	336
2012	336
2013	256
2014	249
Thereafter	<u>5,520</u>
	7,033
Less: imputed interest	<u>4,373</u>
	<u>2,660</u>
Due in less than one year	92
Due after one year	<u>2,568</u>
	<u>2,660</u>

## New Brunswick System Operator

Notes to Financial Statements

For the year ended March 31, 2009

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(in thousands of dollars)

### 6 Employee future benefits

NBSO has the following plans providing pension and other post employment benefits to its employees.

#### *Pensions*

NBSO's employees participate in a multi-employer contributory defined benefit pension plan, administered by the Province of New Brunswick under the Public Service Superannuation Act ("PSSA"). The plan provides pensions to employees of the Provincial Government and certain Crown corporations and agencies based on length of service and highest successive five-year average salary.

The plan was 96.1% funded as of April 1, 2008, the date of the most recent external valuation of the plan. The Province has advised participating corporations that the unfunded liability is being funded through annual escalating payments. Payments by NBSO to the plan during the year to March 31, 2009 were \$121 (2008 - \$90), and future payments, if required, will increase by the annual growth in CPI plus 2%. Future actuarial valuations may change the funding requirement.

#### *Executive supplemental pension benefits*

NBSO also has an unfunded, non-contributory pension plan that provides supplemental pension benefits over and above those provided by the PSSA to certain designated executives.

#### *Retirement allowances*

The retirement allowance program is an unfunded non-contributory plan that provides a lump-sum payment upon retirement equal to one week of pay for each full year of employment to a maximum of 26 weeks of pay for employees and two weeks of pay for each full year of employment to a maximum of 250 days of pay for certain designated executives. Previous years of employment with the Provincial Government and certain Crown corporations and agencies qualify toward the participants entitlements under this plan.

#### *Other post retirement benefits*

Employees of NBSO are entitled to a life insurance benefit of \$15 payable in the event of death after retirement. In addition, executives who retire after age 60 are entitled to an extension of their group benefits to age 65 at NBSO's expense.

The net benefit cost recognized during the year to March 31, 2009 in relation to the executive supplemental pension benefits, retirement allowances and other post retirement benefits plans was \$110 (2008 - \$102)

# New Brunswick System Operator

## Notes to Financial Statements

For the year ended March 31, 2009

(in thousands of dollars)

### 6 Employee future benefits (continued)

Information about NBSO's executive supplemental pension benefits, retirement allowances and other post retirement benefit plans as at March 31, 2009 (measurement date) based on extrapolations of actuarial valuations prepared as at April 1, 2008 (2008 - April 1, 2007) for accounting purposes are as follows:

	2009 \$	2008 \$
Accrued benefit obligation	403	533
Unamortized past service costs and actuarial losses	(159)	(220)
<b>Accrued benefit liability</b>	<b>244</b>	<b>313</b>

The significant actuarial assumptions adopted in measuring NBSO's accrued benefit obligation and net benefit cost for the executive supplemental pension benefit, retirement allowance and other post retirement benefit plans are as follows:

	2009	2008
Discount rate at end of year used to determine the accrued benefit obligation	6.50%	5.25%
Discount rate at beginning of year used to determine the net benefit cost	5.25%	5.25%
Rate of compensation increase at end of year to determine the accrued benefit obligation	2.50%	2.50%
Rate of compensation increase at beginning of year used to determine the net benefit cost	2.50%	2.50%

A 9% and 5% annual rate of increase in per capita costs of covered medical care and dental benefits respectively has been assumed for 2009. Medical cost inflation is assumed to decrease to 5% by 2013 and remain at that level thereafter.

### 7 Financial instruments

#### Fair value

NBSO's financial statements include cash, accounts receivable and payable, deferred regulatory liabilities and capital lease obligations. Due to the short-term maturity of cash, accounts receivable and payable the carrying value of these instruments are reasonable estimates of their fair value. The fair value of deferred regulatory liabilities has not been determined as it cannot be readily measured as there are no specified repayment terms. The fair value of the capital lease obligations payable to NBPT is affected by changes in the prevailing level of interest rates. NBSO has not entered into any financial instruments to hedge the fair value exposure associated with this item. The carrying value of this obligation is believed to be a reasonable approximation of its fair value.



# New Brunswick System Operator

Notes to Financial Statements

For the year ended March 31, 2009

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(in thousands of dollars)

## 7 Financial instruments (continued)

### Credit risk

Financial instruments which potentially subject NBSO to concentrations of credit risk primarily consist of accounts receivable billings due from market participants, the majority of which relates to 2 customers, namely New Brunswick Power Generation and New Brunswick Power Distribution and Customer Service for \$9,185 (2008 - \$7,639). No allowance has been provided for accounts receivable at March 31, 2009 as management considers all accounts receivable to be probable of collection. NBSO's tariffs establish specific periods for the adjustment of settlement invoices as originally billed and for challenges to amounts billed for a particular service month.

Subsequent invoices issued during the settlement adjustment period "true up" amounts previously billed. After all true up invoices are issued during the settlement adjustment period, market participants may challenge the amounts billed for a particular service month. If NBSO agrees with the provisions of the challenge, a final invoice is issued for that service month. As a result, NBSO is exposed to credit risk until all settlement adjustments and final invoices for each service month are finalized and liquidated. However, NBSO is allowed to recover bad debt losses from the remaining market participants in future billings.

As per OATT, Section 7.1, each invoice shall be subject to adjustment for any errors in calculations, meter readings, estimating or otherwise up to twelve months after the date of original issuance. These invoices may be challenged by market participants up to 10 days after the date of original issuance.

### Interest rate risk

NBSO is exposed to interest rate risk as future changes in the prevailing level of interest rates affects the cash flows associated with its cash. NBSO has not entered into any financial instrument contracts to hedge this interest rate exposure.

### Currency risk

NBSO is subject to minimal foreign exchange risk as less than 1% of its revenues and less than 1% of its expenses are denominated in foreign currencies. NBSO has not entered into any foreign exchange contracts to minimize the effects of foreign exchange fluctuations on its operations or these financial statements.

# New Brunswick System Operator

## Notes to Financial Statements

For the year ended March 31, 2009

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(in thousands of dollars)

### 8 Economic dependence on related parties

NBSO has entered into the following agreements and contracts with the NB Power group of companies, which are related through common ownership by the Province of New Brunswick.

#### Operating agreement with transmitters

In order to be able to comply with the provisions of the Electricity Act and the Market rules, NBSO has entered into agreements with transmitters to direct the operation of the Transmission system, direct the operation and maintain the reliability of the System Operator controlled grid and maintain the reliability of the integrated electricity system. Tariff charges collected and remitted to NBPT for the year to March 31, 2009 amounted to \$82,221 before tax (2008 - \$79,890).

#### Agreement for the secondment of employees from NBPT

In order for NBSO to fulfill the tasks and functions necessary to meet its responsibilities under the Electricity Act, designated employees of NBPT who work at its Energy Control Center are seconded to NBSO. Under the terms of the agreement, NBSO is responsible for the full cost of the Energy Control Centre and its employees. For the year ended March 31, 2009, NBSO remitted \$5,376 before tax (2008 - \$5,154) to NBPT. The current agreement ends March 31, 2013. Unless written notification of termination is given by either party on or before the commencement of the last year of the contract period, the agreement is renewed for a further five years, to a maximum of four more renewals (March 23, 2033).

#### Services agreement with NBPT

NBPT agrees to provide certain services (e.g. human resources, payroll, benefits administration, business information systems, etc.) for the direct employees of NBSO. The current agreement ends March 31, 2009. Unless written notification of termination is given by either party on or before September 30, 2009 the agreement will automatically renew for a one year period. In subsequent years, renewal will be automatic unless written notice of termination is given on or before September 30 of the previous year. NBPT charged NBSO \$86 before tax (2008 - \$49) for such services during the year ended March 31, 2009.

#### Ancillary services contracts with NB Power Generation NB Power Nuclear and NB Power Colson Cove

The market rules require that NBSO obtain ancillary services under contract from Market Participants for registered facilities. The contract terms are tied to the estimated shutdown dates of the contracted facilities. Amounts paid to these parties during the year ended March 31, 2009 for such contracts amounted to \$7,284 before tax (2008 - \$7,067).

## New Brunswick System Operator

Notes to Financial Statements

For the year ended March 31, 2009

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(in thousands of dollars)

### 8 Economic dependence on related parties (continued)

#### Service agreement for Network Integration Transmission Service

NBSO agrees to provide and NB Power Distribution and Customer Service agrees to take and pay for Network Integration Service in accordance with the provisions of Part III of the Tariff and this agreement. Service under this agreement can be terminated by either party, upon the expiration of 12 months written notice to the other party. Revenues under this agreement amounted to \$48,072 (2008 - \$50,313) for the year ended March 31, 2009.

In addition to the above agreements, transmission tariff revenues include \$18,761 (2008 - \$19,340) charged to the NB Power group of companies, as market participants.

At March 31, 2009, accounts receivable included \$9,305 (2008 - \$7,807) and accounts payable and accrued liabilities included \$8,857 (2008 - \$8,449) due from/to the NB Power group of companies respectively.

June 18, 2009

#### **Additional Comments of Auditors**

Energy imbalance and residual monthly costs are presented as supplementary information only. In this respect, they do not form part of the financial statements of New Brunswick System Operator (NBSO) for the year ended March 31, 2009 and hence are excluded from the opinion expressed in our report dated June 18, 2009 to the Board of Directors on such financial statements. The information in these schedules has been subject to audit procedures only to the extent necessary to express an opinion on the financial statements of NBSO and, in our opinion, is fairly presented in all respects material to those financial statements.

*PricewaterhouseCoopers LLP*  
Chartered Accountants

## **New Brunswick System Operator**

Supplemental information (unaudited)

**For the year ended March 31, 2009**

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(in thousands of dollars)

### **Energy imbalance and residual monthly costs**

The total energy imbalance and residual monthly costs that represent the settlement of the transactional volume of energy and energy related products in NBSO's market during the year ended March 31, 2009 amounted to \$24,369 (2008 - \$29,371). The above amounts include \$21,995 (2008 - \$25,349) credited to and \$20,801 (2008 - \$26,872) charged to the NB Power group of companies.





## **New Brunswick System Operator**

Supplemental information (unaudited)

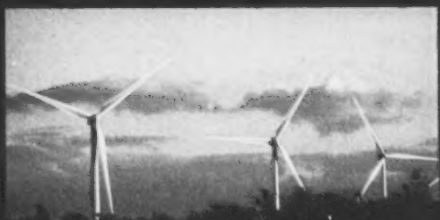
**For the year ended March 31, 2009**

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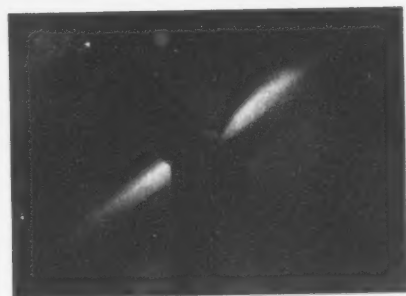
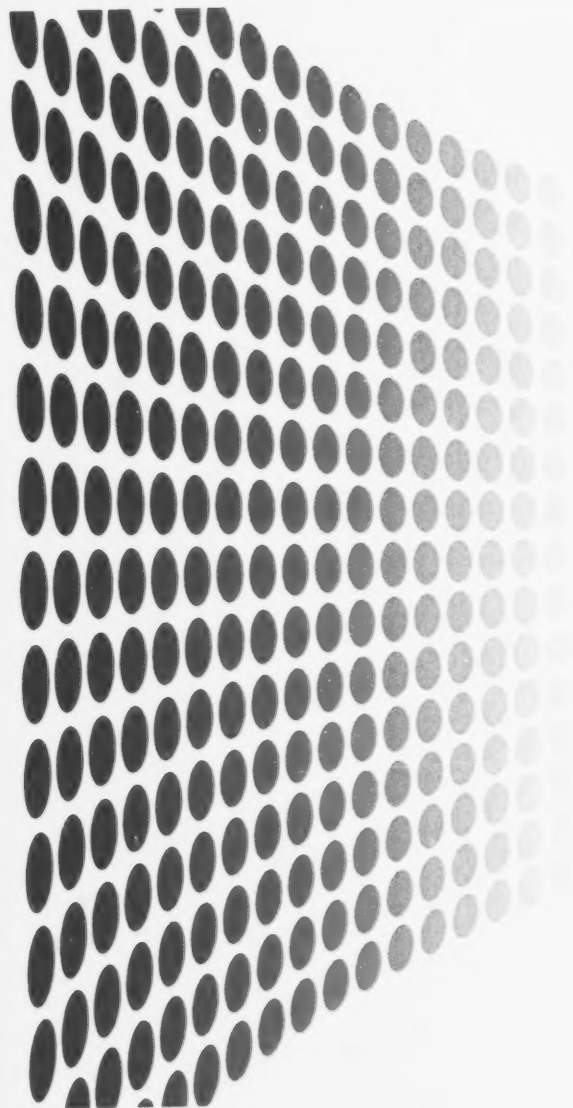
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For more information on The New Brunswick System Operator go to [www.nbso.ca](http://www.nbso.ca)